

1. A method to impart anti-microbial activity to the surface of a polyolefin object which comprises:

a. coating the surface with an anti-microbial composition comprising:

i. from 0.5 to 5 weight percent of an anti-microbial metal selected from the group consisting of elemental and ionic silver, zinc, copper and cadmium deposited on a solid carrier, and

ii. from 95 to 99.5 weight percent of a polyolefin fusible solid selected from the group consisting of a hydrocarbon resin having a viscosity at 177 degrees C. in excess of 20, a polyolefin having a melt index less than 50, and mixtures thereof; and

b. heating the surface to a temperature at least 250 degrees F. for sufficient time to fuse the coating into the wall of said object.

2. The method of claim 1 wherein said anti-microbial metal is silver.

3. The method of claim 1 wherein said carrier solid is an ion-exchange solid and said anti-microbial metal is ion-exchanged onto said carrier solid.

4. The method of claim 3 wherein said ion-exchange solid is zeolite.

5. The method of claim 3 wherein said anti-microbial metal includes zinc.

6. The method of claim 1 wherein said polyolefin fusible solid is polyethylene.

7. The method of claim 1 wherein said polyolefin fusible solid includes a hydrocarbon resin.

5           8. In a rotational molding method for fabrication of a hollow form plastic product in a rotational molding cycle wherein plastic particles are charged to a rotational mold, the mold is closed, heated to a molding temperature while being rotated about its major and minor axes for a time  
10 sufficient to form said molded product and the mold is cooled to a demolding temperature, opened and the molded product is ejected, the improved method for imparting anti-microbial activity to the exterior surface of said molded product which comprises:

15           applying to a selected area of the interior surface of said rotational mold at substantially the demolding temperature a coating comprising

20           i. from 0.5 to 5 weight percent of an anti-microbial metal selected from the group consisting of elemental and ionic silver, zinc, copper and cadmium deposited on a solid carrier, and

25           ii. from 95 to 99.5 weight percent of a polyolefin fusible solid selected from the group consisting of a hydrocarbon resin having a viscosity at 177 degrees F. in excess of 20, a polyolefin having a melt index less than

50, and mixtures thereof; and

- b. continuing said rotational molding cycle to obtain a molded, hollow form plastic product having said anti-microbial composition fused into the wall of said product.

9. The method of claim 8 wherein said anti-microbial metal is silver.

10. The method of claim 8 wherein said carrier solid is an ion-exchange solid and said anti-microbial metal is ion-exchanged onto said carrier solid.

11. The method of claim 10 wherein said ion-exchange solid is zeolite.

12. The method of claim 10 wherein said anti-microbial metal includes zinc.

13. The method of claim 8 wherein said polyolefin fusible solid is polyethylene.

14. The method of claim 8 wherein said polyolefin fusible solid includes a hydrocarbon resin.